

ICS 59.080.60

CCS W 56



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 35457-2017

**Resilient, textile and laminate floor coverings -- Test method for
volatile organic compound (VOC) emissions**

弹性、纺织及层压铺地物 挥发性有机化合物(VOC)释放量的试验方法

(English Translation)

Issued on: December 29, 2017

Implemented on: December 29, 2017

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China, Standardization
Administration of the People's Republic of China**

Table of Contents

Preface
Introduction
1 Scope
2 Normative references
3 Terms and Definitions
4 Symbols and Abbreviations
5 Equipment
6 Sampling and transport of samples
7 Preparation of test samples
8 Release detection system
9 Test Condition
10 Preparation of release detection chamber
11 Test Procedure
12 Gas Sample Analysis
13 Calculation of Gas Concentration and Specific Area Release
14 Performance Characteristics
15 Test Report
Appendix A (Informative) Overall description of the release detection module
Appendix B (Informative) Evaluation System Example
Reference

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method equivalent to the use of ISO 10580:2010 "Elastic, Textile and Laminate Flooring Volatile Organic Compounds Test Method for (VOC) Release."

Introduction

The health and comfort of the occupants of the indoor space is conditioned by the indoor climate (especially ventilation, temperature and relative humidity) in the room and Indoor pollutants and other factors. Sources of these contaminants may be extensive. Various international agencies have committed to building product volatility Evaluation of the

release of organic compounds (VOCs). Their research results are published in the test report, because these results provide adequate and detailed information has been identified as "quasi-standard norms" literature. The purpose of this standard is to serve those who are committed to protecting consumers from being Learn the harm of contaminated products and prevent negative effects on the body caused by the chemical release of materials (ie, carcinogens, teratogens, irritants, odors) the organization provides guidance. If the requirements of the market for low-release flooring materials are met, the above protection can be effectively implemented to meet the requirements of further protection.

To protect the needs of consumers, many countries and industry organizations have developed different systems for evaluating material release.

This standard refers to the current international testing methods related to VOC emissions from textile, elastic and laminated flooring.

Elastic, textile and laminate flooring Volatile organic compounds (VOCs) Release rate test method

1 Scope

This standard specifies the release of volatile organic compounds (VOCs) per unit area and/or concentration of gaseous VOCs under specified environmental conditions.

Degree of determination of the routine detection method.

This standard covers detection of volatile organic compound emission detection chambers for flexible flooring, textile flooring and laminate flooring.

Explained.

Appendix A describes the release detection module and Appendix B gives an example of the evaluation system.

The detection chamber detects the release of volatile organic compounds from unused (pre-layout) floor covering products before and during testing all of the samples in the process need to be processed. For different flooring products, sampling, transportation and storage procedures have detailed regulations.

It will affect the test data. For each type of product to be inspected, provision shall be made for sample preparation.

Note: Due to the heterogeneous nature of the product, it is necessary to select multiple samples to be tested from the same sample for release testing.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. For undated references, the latest version (including all amendments) applies to this document.

ISO 16000-3 Indoor air. Part 3. Determination of formaldehyde and other carbonyl compounds. Active sampling method (Indoorair-Part 3. Determination of formaldehyde and other carbonyl compounds-Active sampling method) ISO 16000-6:2004 Indoor air Part 6. Active sampling, thermal desorption and gas chromatography using Tenax TA MSD/FID method for the determination of volatile organic compounds in the air of indoor and test cabins (Indoorair-Part 6: Determination of volatile organic compounds in indoor and test chamber air by active sampling on Tenax TA sorbent, thermal desorption and gas chromatography using MS/FID) ISO 16000-9:2006 Indoor air Part 9. Measurement of Volatile Organic Compound (VOC) emissions from construction products and furniture Fixed emission detection chamber method (Indoorair-Part 9. Determination of the emission of volatile organic compounds from building products and furnishing-Emission test chamber method) ISO 16000-11:2006 Indoor Air Part 11. Emissions of Volatile Organic Compounds (VOCs) for Construction Products and Furniture Measurement - sampling, storage of samples and preparation of samples (Indoorair-Part 11. Determination of the emission of volatile organic compounds from building products and furnishing-Sampling, storage of samples and preparation of test specimens) ISO 16017-1:2000 Indoor air, ambient air and workplace air using adsorption tubes/thermal desorption and capillary gas chromatography for the sampling and analysis of volatile organic compounds. Part 1. Air pump sampling method (Indoor, ambient and workplace air-Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography-Part 1: Pumped sampling) ASTM D5197 Standard Test Method for Determination of Formaldehyde and Other Carbonyl Compounds in the Air (Active Sampling Method) [Standard Test Method for Determination of Formaldehyde and Other Carbonyl Compounds in Air (Active Sampler Methodology)]